

In the specification:

Please replace the paragraph beginning on page 2, line 34 and ending on page 4, line 28 with the following:

The above objects have been achieved with a device for testing integrated circuits (ICs). The device includes a base holding a test socket (socket body). The test socket has a means for receiving the terminals (e.g. pad, pins, or other terminals) of an integrated circuit. The lid is joined to the base by a hinge. The lid assembly may be secured by a locking mechanism, that securely holds the lid assembly and base together. A test device, such as an integrated circuit, is held between the lid assembly and base. A pressure plate is retained within the lid assembly. The lid assembly may include a handle, which is fixed to the cam plate. The handle can be rotated a certain distance in either direction, as the handle turns the cam plate also rotates in unison. The lid assembly includes a plurality of fixed bearing assemblies and a cam plate having a circumferential circuit of inclined surfaces, which ride upon the bearing assemblies. As the cam plate moves over the bearing assemblies, the incline along the cam plate forces the cam plate in a downward position. This cam plate subsequently forces the pressure plate in a downward direction. A thrust bearing assembly may or may not be used between the pressure plate and the cam plate to eliminate rotational forces from the cam plate to the pressure plate. Stop points along the incline of the cam plate may consist of notches or grooves which may arrest the bearing assemblies at different points along the incline of the cam plate. The inclined surfaces that make up the cam may or may not terminate in grooves which may or may not be evenly displaced around the cam plate within the lid assembly such that said grooves and inclined surfaces may or may not form a continuous circuit, each groove sized in a method to arrest the bearings

assemblies in place. Pressure exerted by the pressure plate on the IC brings the terminals of the integrated circuit into contact with the test socket. Rotating the handle in the opposite direction can subsequently reverse the movement of the cam plate and bring it in an upward direction. The cam plate may or may not be biased against the bearings assemblies by the use of some load, such as spring loading. The cam plate mechanism may also be a cam groove with an incline within a cylindrical, square, or otherwise shaped pressure plate assembly. The pressure plate assembly would be retained in the lid and be the embodiment of the handle, cam plate and pressure plate. As the pressure plate assembly moves over the bearing assemblies, the incline of the cam inside the pressure plate assembly forces the pressure plate assembly in a downward or upward direction, depending on which direction the pressure plate assembly is rotated. A thrust bearing assembly may or may not be used in the pressure plate assembly and may be between the pressure plate assembly and the cam assembly to eliminate rotational forces from the cam assembly to the pressure plate assembly. Stop points along the incline of the cam groove in the assembly may consist of notches or grooves which may arrest the bearing assemblies at different points along the incline of the cam groove within the pressure plate assembly. The inclined surfaces that make up the cam may or may not terminate in grooves which may or may not be evenly displaced around the cam groove within the pressure plate assembly such that said grooves and inclined surfaces may or may not form a continuous circuit, each groove sized in a method to arrest the bearings assemblies in place.

Please replace the paragraph beginning on page 6, line 30 and ending on page 7, line 2 with the following:

In Fig. 1, the test socket 10 features a lid assembly 16 and a base 14. The device under test 12, for instance an integrated circuit, fits into a socket body 40 in the base 14. As will be explained in more detail below, a pressure plate 44 in the lid assembly 16 forces the pins or pads of the device 12 into contact with the socket body 40 when the lid assembly 16 is closed and the pressure plate 44 is activated.

Please replace paragraph beginning on page 7, line 7 and ending on page 7, line 13 with the following:

In Fig. 3, one embodiment of the test socket 10 features a base 14 with a socket body 40 for receiving the device 12 under test. The base hinge assembly 38 for connecting the lid assembly ~~26~~ 16 and socket ~~base~~ body 40 is attached to the base 14. The locking mechanism 42 is secured to the ~~bearing housing~~ lid 22, for securing the base 14 to the lid assembly 16.

Please replace the paragraph beginning on page 7, line 22 and ending on page 7, line 26 with the following:

A cam plate 28 sits below the ~~bearing housing~~ lid 22. This cam plate 28 features a number of inclined surfaces 52 around the circumference of the cam plate 28. These inclined surfaces 52 are interrupted by grooves 30, which ~~are sized to hold the bearings 24~~ stall the bearing assemblies 24 travel at regular intervals.

Please replace the paragraph beginning on page 7, line 27 and ending on page 8, line 11 with the following:

The cam plate 28 sits on a thrust bearing assembly 34, which allows the cam plate to rotate freely and independent of the pressure plate housing 36. The handle 18 and cam plate 28 are attached by fasteners such as screws 97. Four threaded fasteners 20 (Although this embodiment features four fasteners 20, other embodiments may have a different number of threaded fasteners) is attached to pressure plate housing 36 and passes through the lid 22. Springs 21 can be placed between the head of the threaded fastener 20 and the lid 22. Lid 22 may have some means of a lid lip to retain the springs 21. The force of the springs 21 between the lid 22 and the head of the threaded fastener 20, pulls the pressure plate 44, thrust bearing assembly 34, and cam plate ~~52~~ 28 against the bearing assemblies 24 in the lid 22. In this way, the bearing assemblies 24 are always contacting the cam plate ~~52~~ 28 because of the bias of the springs 21. As previously discussed, another way to achieve this means is to use a cam assembly with both top and bottom cam plates to create a cam groove in the cam assembly.

Please replace paragraph beginning on page 8, line 16 and ending on page 9, line 3 with the following:

The thrust bearing ~~32~~ assembly 34 fits in an indentation 54 in pressure plate housing 36. The thrust bearing assembly consists of the thrust bearing 32 and two shims 33. Shims 33 may be placed between the thrust bearing 32 and the pressure plate housing 36, and between the cam plate 28 and thrust bearing 32, to increase the distance of the pressure plate housing 36 with respect to the cam plate ~~52~~ 28. The pressure plate 44 is attached, or is part of pressure

plate housing 36 and is situated below the pressure plate housing 36. As shown in Fig. 1, the portion of the pressure plate 44 is shaped such that when it comes into contact with the device 12, it will push the pins of the device into the socket body 40. Referring again to Fig. 3, the handle 18 and cam plate 28 are attached by screws 97, which fit in holes 51. Referring again to Fig. 3, threaded fasteners 20 are attached to the pressure plate housing 36, the threaded fasteners pass through lid 22 and springs 21 are between the lid lip 50 and the head of the fastener 20. This means retains the handle 18, cam plate ~~52~~ 28, thrust bearing assembly 34, and pressure plate housing 36, in the lid 22, forming the embodiment of the lid assembly 16.

Please replace the paragraph beginning on page 9, line 4 and ending on page 9, line 26 with the following:

The operation of the embodiment of the test socket shown in Fig. 3 is illustrated in Figs. 4, 5, 6, and 7. With respect to Fig. 4, when the handle 18 has not been turned, i.e., before the pressure plate 44 has been "activated," the bearing assembly 24 rests in or near a groove 30. In Fig. 5, the handle 18 is rotated slightly. This causes the bearing assembly 24 to leave the groove 30 and begin (relatively) moving up the inclined surface of the cam plate ~~52~~ 28 (as shown in Fig. 3, in this embodiment the cam plate 28 is actually rotated when the handle 18 is rotated, because they are attached to each other). Referring again to Fig. 5, as the ~~bearing 24 inclined surface 52~~ moves relative to the ~~inclined surface 52 bearing assembly 24~~, the rotational force of this movement is converted to vertical force and the pressure plate 44 is pushed down. The downward movement of the pressure plate 44 places pressure on the device 12, pushing the device 12 down and into contact with the socket

body. In Figs. 6 and 7, the rotation of the ~~cap~~ handle 18 continues, causing greater displacement of the pressure plate 44. As the pressure plate 44 is pushed downward, the device 12 is brought into closer contact with the socket body until the pins of the device 12 lock into the holes of the socket body.

Please replace the paragraph beginning on page 9, line 27 and ending on page 9, line 35 with the following:

Another method of achieving the translation of rotational movement to vertical movement is by bringing the pressure plate into contact with the device by rotating the pressure plate housing containing the bearings assemblies within the surface housing. The inclined surfaces are situated in the ceiling of the surface housing. Unlike the embodiment shown in Fig. 3, the bearings assemblies are actually rotated. The embodiments of Figs. [[1-9]] 1-7 may be either manually or robotically activated.

Please replace the paragraph beginning on page 10, line 14 and ending on page 10, line 32 with the following:

A feature of the test socket is incremental mechanical lowering of the pressure plate. An IC may either have pins or pads, and the height of the IC could vary considerably. If the test device has a pressure plate which is lowered a known amount, determined by the mechanical structure size of the device, the user has a better tool for testing different ICs having differing heights. Shims between the thrust bearing and pressure plate housing can further accommodate the varying height changes of the IC's. In the present device, a cam plate on the lid assembly has an

inclined surface extending about the interior circumference of the cam plate. A plurality of grooves along this circumference receives bearing assemblies, which are attached to the lid. A rotating handle engages the cam plate and allows rotation of the bearings assemblies from one groove to the next. This lowers the cam plate a discrete, mechanically defined, incremental distance. The cam plate engages the pressure plate, lowering the pressure plate the same distance.